Memorandum

November 15, 2006

TO:

Kevin Rochlin and Sally Thomas, EPA

FROM:

John Roland, Ecology

SUBJECT:

Teck Cominco Technical Memorandum No. 1, Preliminary Ecological

Risk Management-Based Action Objectives -

Upper Columbia River Site RI/FS

Please accept the following comments on the above noted deliverable.

Extensive negotiations by EPA and Teck during the RI/FS settlement contract resulted in the clarification of the fabricated term: risk management-based action objectives. While that term was permitted in the settlement language it should no longer be applied during the actual RI/FS. It is a creature within the settlement only. The settlement establishes this work will be NCP compliant and follow guidance. Thus that should occur and in this case return to nationally accepted language—RAOs.

There is reference that the Phase 2 work will "supplement" previous work. Phase 2 will not just supplement. There are several RI tasks not addressed in Phase 1. Statements suggesting that Phase 2 is just a wrap up phase are misleading.

Focus appears to be wholly on population-level risks. This very well may not be appropriate and should be revised.

Project remedial goals can be noted now. Chemical specific criteria and ARARs do exist.

For the RAOs the use of the term - 'reduce to acceptable levels' - is problematic and weakly defined. More traditional and clearer objectives are in order. Phrases such as: prevent, eliminate, enhance, and protect come to mind.

What are 'non-nuisance' benthic infauna? Questionable term.

Missing RAOs to consider:

- Aquatic life and reproduction living at the sediment/water interface.
- Zooplankton community
- Fish reproduction
- Shell fish
- Amphibians, etc.

Special status fish - 100x real was

Groundwater pathway

Thank you for accepting and considering these comments. I'm available to meet and discuss

these or other items at your convenience.